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IRON AGE
METALS PRODUCER
FEBRUARY 1987

NEW USES FOR INDUCTION

Plus: 2 Reports on Electric Furnaces

Steel and Automakers Team Up
To Improve Steel Quality

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METALS PRODUCER

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NEWSWATCH

Simmons, chairman of Allegheny Ludlum Steel Corp. "Foreign governments continue to subsidize their specialty steel producers. Foreign capacity to produce specialty steel, which has resulted in a worldwide glut, has increased rather than decreased in the last three and a half years."

In the first 10 months of 1986, imports of stainless and tool steels totaled more than 216,000 tons or 19.3 pct of the market. Imports of tool steel totaled more than 40 pct of the market.

The petition for extension of the 1983 restraints has been filed by the industry and United Steelworkers of America under Section 203 of the Trade Act. The parties asked that the measures be extended until 1990.

For the past 10 years or more, the specialty steel producers have been involved almost constantly in agitation for some form of trade restraint. Mr. Simmons expressed hope that a permanent solution to the trade problem might be forthcoming. "We've never been more optimistic that effective trade legislation would occur," he said.

Indirect steel trade continues to rise, AISI says

The "indirect" steel trade deficit grew nearly 50 pct from 1984 to 1985, according to the American Iron and Steel Institute (AISI).

The indirect steel trade deficit is a new method of figuring steel trade. It is calculated by determining the steel content of imported products, then subtracting the steel content of the same type of product exported by the U.S.

Using figures from the U.S. Departments of Labor and the Bureau of Census, and with technical asssistance from Bethlehem Steel Corp., AISI said this "indirect" trade grew from about 5.0 million tons in 1984 to 7.4 million tons the next year.

Results of an 1985 study in this area had been reported by AISI in October. However, the trade association said, the newly-developed figures for 1984 show what happened in 1985 was "part of a trend by foreign countries to increase the value of their shipments of manufactured goods to the U.S., while limiting such imports from the U.S."

Indirect Steel Trade*

In Millions of Net Tons

	Imports	Exports	Net
Auto	6.8	2.9	-3.9
Machinery	4.2	4.1	-0.1
Other	2.8	1.8	-1.0
Total	13.8	8.8	-5.0

* 1984 Source: AISI

And, AISI claimed, estimates by the International Iron and Steel Institute for earlier years indicate that as recently as 1980, U.S. indirect steel trade was roughly in balance.

These figures indicate, AISI said, "The growth in indirect steel imports, combined with direct steel mill product imports, shows exactly how much the United States steel market has really been taken over by imports. When these two amounts are added together, it becomes clear that rising imports of steel-containing products more than offset the small decrease in direct steel mill product imports from 1984 to 1985."

In its latest study of this indirect trade, for 1984, AISI reported that estimated imports were 13.8 million tons, while exports were 8.8 million tons (see table).

National brings ladle station onstream at Granite City

"Ladle metallurgy permits refinements of the chemical composition of the steel just before it is cast," said Masaharu Ito, vice president of technology, National Steel Corp.

"With these last minute refinements, we can assure our customers not only the exact chemical composition they need but exceptionally clean steel too with sulfur content as low as is possible anywhere in the world today," said Mr. Ito.

These comments came as National Steel dedicated a new ladle metallurgy facility at the company's Granite City Division near St. Louis.

Costing $16 million, the ladle facility employs the technology of Nippon Kokan, which has a 50 pct interest in National. Equipment was supplied by Davy McKee, which is licensed to supply Nippon Kokan and Daido Steel ladle technology in the U. S.

In the operating sequence at Granite City, 237-ton ladles are carried by rail car from the basic oxygen shop to the entrance of the ladle station. The ladle is lifted by crane to a position inside the station and then capped.

Argon is injected through a lance. The argon stirring promotes thermal and chemical uniformity as well as the removal of impurities. This technique is expected to boost the recovery of silicon, manganese and other alloys from the old average of 75 pct to as high as 95 pct.

Alloy additions are made by means of a computer controlled weighing system, which injects additives via a chute.

The system gives extremely low sulfur levels—as low as 0.002 pct. Reducing conditions make it possible to remove oxygen and sulfur.

"This low sulfur steel is especially important to automotive, canmaking and pipe and tube customers who subject steel to severe drawing and forming stresses in the manufacturing process," said Mr. Ito.

The ladle treatment facility serves a slab caster and is equipped for the buffering function considered important for smooth operation. Arc reheating in the ladle makes it possible to maintain or increase temperature